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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NGUYEN, HAU H	

ART UNIT	PAPER NUMBER
2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/729,976	OHTSUKI ET AL.	
	Examiner	Art Unit	
	Hau H. Nguyen	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on March 11, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13 and 15 recite the limitation "the viewpoint moving unit". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-8, 10, 11, 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Patent No. 6,597,358) in view of Matthews, III et al. (U.S. Patent No. 5,724,492) (Matthews, hereinafter).

As per claim 1, Miller teaches a method for organizing computer applications in a three-dimensional perspective, wherein as shown in Fig. 6, comprising:

a database (inherently included) *to store a first information list* (e.g. application window A), *a second information list* (e.g. application window B), and *a third information list* (e.g. application window E) (Miller further teach the computer application may be text-based, such as word processing, *spreadsheet*, or *e-mail applications*, col. 3, lines 43-52. Therefore, a spreadsheet can be implemented in the embodiment as shown in Fig. 6, to contain the first, second, and third information lists);

a scene generation unit operable to generate a 3D object (such as a cube in Fig. 6) *on which the first information list is associated with a direction of a first axis, the second information list is associated with a direction of a second axis, and the third information list is associated with a direction of a third axis, the first to third information axes being a 3D xyz space* (of the cube 610, Fig. 6, and also Fig. 8, col. 7, lines 46-65), *the second information list relating the first information list, and the third information list relating either to the first information list or the second information list* (col. 7, lines 23-45); *and*

a display unit operable to display the generated 3D object on a screen of the display device (Fig. 8, step 850).

Although Miller does not explicitly teach the display device is a mobile terminal, it would have been obvious to one skilled in the art to apply the method as taught by Miller in a mobile terminal device, such as laptop, or other portable handheld device to obtain the compactness and portability of the computing device, as is taught by Matthews. Matthews, as shown in Figs. 4 and 10, teaches a handheld device in which information list such as menu 1005 is mapped onto a three dimensional object (col. 17, lines 45-62).

As per claim 2, Miller also teach a viewpoint moving unit operable to move a viewpoint freely according to an input from a user of the mobile terminal device (step 860, Fig. 8); and

an image generation unit operable to generate an image of the 3D object generated by the scene generation unit, the image being viewed from the moved viewpoint;

wherein the display unit displays the 3D object on the screen of the mobile device according to the image generated by the image generation unit (Fig. 8, steps 860-890, col. 8, lines 9-31).

As per claim 3, Miller further teach the first information list is a personal information list (e.g. e-mail address), the second information list and the third information list are related to the first information list (e.g. e-mails can be related by when to be "sent", "received", or "drafted", etc., col. 7, lines 23-45).

As per claim 4, as cited above, Miller teach the related information list includes a history information list. Although Miller does not explicitly teach a group information list, it would have been obvious to one skilled in the art to group lists of contacts into categories that best suit the user's preference in order to easily organize and retrieve.

As per claim 5, the personal information list, the group information list, and the history list is discussed above with reference to claims 3 and 4.

As per claim 6, Miller teach the first information list, the second information list, and the third information list are texture-mapped on the 3D object in the first axis direction, the second axis direction, and the third axis direction, respectively (col. 7, line 66 to col. 8, line 6).

As per claim 7, as cited above in claim 6, Miller teach a texture generation unit operable to generate 2D texture images showing items listed on each of the lists stored in the database;

a model generation unit operable to generate polygon models having 2D or 3D space coordinates (generated form texture memory 260, Fig. 2); and

an object generation unit operable to generate small objects by mapping each of the generated texture images on a surface of or inside each of the polygon models, wherein the scene generation unit generates the 3D object by laying said small objects on one another in the 3D xyz space (col. 5, lines 23-49).

As per claim 8, Miller also teach a cursor key input unit operable to move a position of a cursor displayed on the screen to a position required by the user, according to an instruction from said user; and a decision key input unit operable to decide one of the small objects on which the cursor is placed, wherein the display unit displays, on the screen, an enlarged view of the texture image mapped on the surface of or inside the small object decided by the decision key input unit (see Fig. 8, and its disclosure).

As per claim 10, Miller also teach each of the small object (such as itemized item on the spreadsheet) is a personal information object generated by mapping, on one of the polygon models, one of the texture images (as cited above) that shows a personal name listed on a personal information list that is one of the lists stored in the database (inherently included in the "received" e-mail) (col. 7, 41-45);

As per claim 11, Miller teach a mode selection unit operable to select one of a plurality of display modes for displaying an image of the 3D object viewed from the viewpoint in the 3D xyz space, wherein the display unit displays the 3D object on the screen according to the display mode which the mode selection unit selects based on an instruction from the user (as cited above), and the display modes include at least one of the following display modes: normal

display mode for displaying a front view of the 3D object (e.g. front view of application window A, Fig. 6); oblique display mode for displaying an oblique view of the 3D object (e.g. oblique view of application window B).

As per claim 14, as applied to claim 11, Miller teach the scene generation unit generates a normal display object on which a group information (such as "sent", "draft," or "received" e-mails, etc.) object showing group information is placed in the first axis direction and a personal information object showing a personal name that belongs to said group information object is placed in the second axis direction (such as e-mail address, although Miller does not explicitly state, it would have been obvious to includes personal name in categorized folders with the name of the person sending the e-mails, etc.), when the mode selection unit selects the normal display mode, the normal display object showing the front view of the 3D object, and the display unit displays said normal display object on the screen (Figs. 6 and 7, col. 7, lines 40-45).

As per claim 15, as cited above, Miller teach each side of the cube contains information can be texture mapped along the first, second, and third axes. As applied to claim 11, Miller also teach the cube can be selected to display in the oblique display mode. As applied to claim 2, the cube can be moved freely wherein the image generation generating image on each side of the cube such that the image can be viewed from a new viewpoint, and displayed on the display device. Miller also teach the information appears on the surfaces can be spreadsheet application so that the user can itemize various information, and one of the application can be used in e-mail application. Therefore, it would have been obvious to one skilled in the art to organize the information on each surface of the cube such that a group information object that shows group information in the first axis direction (e.g. "sent", "received", "draft" emails, etc.); a personal

information object that shows a personal name belonging to said group information object in the second axis direction (as applied to claim 14); a history information object that shows history information and a personal information element object that shows personal information, the history information object and the personal information element object relating to said personal information object in the third axis direction (the history information can be implemented using a timeline of when the e-mails was sent, received, etc.), because by organizing the information in this manner, the user would have quick access to all the information (col. 7, lines 22-45).

Claim 16, which is similar in scope to claims 2 and 11, is thus rejected under the same rationale.

Claims 17 and 21, which are similar in scope to claim 1, are thus rejected under the same rationale.

Claims 18 and 22, which are similar in scope to claim 2, are thus rejected under the same rationale.

Claims 19 and 23, which are similar in scope to claim 7, are thus rejected under the same rationale.

Claims 20, 24, and 25, which are similar in scope to claim 11, are thus rejected under the same rationale.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Patent No. 6,597,358) in view of Matthews, III et al. (U.S. Patent No. 5,724,492), and further in view of Kido et al. (U.S. Patent Application No. 2002/0116207) (Kido, hereinafter).

As per claim 9, the combined references Miller-Matthews teach generating history information list on the surface of one of the 2D polygon models (i.e. one side of the cube), and applying texture onto the surface of the polygon. Miller-Matthews fails to teach displaying history information caption on the screen as a balloon, the history information caption object corresponding to the small object point by the cursor. However, it is well-known in the art that when a cursor is pointed to an item in a display lists or items, a balloon message is popped up to show the user additional or detail information of that list or item in the list. This is disclosed in Kido as shown in Fig. 22 (see paragraph 183).

Therefore, it would have been obvious to one skilled in the art to modify the history information list as taught by Miller-Matthews utilizing the balloon for displaying caption as taught by Kido to show the history of the information data so that faster information can be presented to the user.

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Patent No. 6,597,358) in view of Matthews, III et al. (U.S. Patent No. 5,724,492), and further in view of Robinson et al. (U.S. Patent No. 7,618,051) (Robinson, hereinafter).

As per claim 12, as cited above, the combined references Miller-Matthews teach showing the history information on the display surface of a cube object and each of the surfaces are texture mapped and displayed on the screen of the display device according to the user's selection of the viewpoint. Miller-Matthews fails to teach generating an immersive information display object that shows, on the screen, an internal view information when the mode selection unit selects the immersive information display mode.

However, Robinson teach a method that enables users to interact fully, intuitively and far more easily "in" a spatial 3D environment (col. 1, lines 53-67) for use in a mobile device (col. 4, lines 32-43), wherein as shown in Fig. 9, the display unit displays the immersive information display object on the screen (i.e. the user can see the information on each surface inside the 3D room, or the cube). Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Robinson in combination with the method as taught by Miller and Matthews in order to provide a more user-friendly and intuitive environment by turning the computer desktop into a "room" that its users can enter, replacing the boring, one or two-dimensional computer desktop with a web enabled, customizable, media rich environment (col. 5, lines 50-67).

As per claim 13, the moving viewpoint of the 3D object, the mapping of the information on the surface of the 3D object in the 3D space according to the user's input, and the organization of the information are discussed above with reference to claims 2-5. Also the display on the screen the immersive information display object is discussed above with reference to claim 12. For at least the above given reasons, claim 13 would have been obvious.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

5/16/2007

KEE M. TUNG
SUPERVISORY PATENT EXAMINER